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With the Compliments

of L. D. Bulkley M.D.
A CLINICAL STUDY

ON

ALOPECIA AREATA

AND ITS

TREATMENT

BY

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A Clinical Study on Alopecia Areata, and its Treatment.¹

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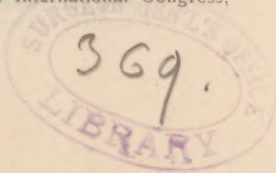
ALTHOUGH not a dangerous affection, and one ordinarily thought of mainly in connection with cosmetic effect, alopecia areata may, and often does, cause an amount of annoyance and distress which is as hard to be borne as actual pain. While in some instances it may be but a transient affair, and may consist of but one or more small, perfectly bald spots, which are readily concealed by hair of ordinary length, in other instances it may prove most intractable, lasting years, involving large and conspicuous areas, and even removing every hair from the body, including eyebrows and lashes; in its fullest development it causes a very considerable disfigurement, and even in moderately severe cases the baldness is so striking that it becomes a veritable cross to the sufferer, from the attention it attracts and from the uncertainty as to the nature and cause of the affection.

It may be well, therefore, for us to give a little consideration to this complaint as it appears clinically among us, and to indicate the treatment most successful in remedying the disease.

I shall not attempt at all to enter into a discussion of the nature or causation of alopecia areata, which has been so ably presented by Robinson² in his article before the

¹ Read before the New York State Medical Society, February 7, 1889.

² Robinson: Transactions of the Ninth International Congress, Washington, 1887, vol. iv., p. 241.



Ninth International Congress in 1887. The subject is a great one, about which much has been written in advocacy of its neurotic origin on the one hand, and of its parasitic nature on the other. A further discussion of the matter here would be fruitless, and foreign to the purpose of the paper, which is simply to present personal clinical experience in the disease, with an analysis of the cases which have been under my observation and care.

Alopecia areata is presented for treatment much less frequently than I had supposed, previous to making my inquiries into the statistics of cases of skin disease which have been under my care. In my first analysis of one thousand cases of skin disease,¹ I find but four instances of alopecia, and of these only one was recorded as alopecia areata, one of alopecia partialis, and the other two had no special designation. In my next series of cases analyzed² not a single instance of the complaint was recorded among 617 cases of skin disease; and in my third analysis³ only one patient with alopecia areata was seen among 774 cases of skin disease. In a subsequent study and report on 8,000 cases of skin disease in private and public practice,⁴ there were 46 cases of alopecia areata; of these, 32 occurred among 2,583 cases in private practice, 1.24 per cent., and but 14 cases were seen in public practice among 5,417 cases, or only 0.25 per cent. of all skin cases.

On examining carefully later records I now find data relative to 119 cases of alopecia areata, occurring among 12,725 cases of skin disease, seen in private practice, at the New York Hospital, and at the Skin and Cancer Hospital. I have excluded all of the earlier records of skin cases seen in other institutions, because the original data are not accessible at present.

The proportion of cases of alopecia areata to the whole number of patients is here seen to be 0.94, or not quite

¹ American Practitioner, May, 1875.

² Ibid., April and May, 1876.

³ New York Medical Journal, April and June, 1877.

⁴ Archives of Dermatology, vol. viii., No. 4, 1882.

one per cent. But when we come to examine the records of cases seen in private practice as compared with those seen in public institutions, the difference will be found very striking. Thus, among these 119 cases, only 32 were observed in public practice among 7,086 cases, it forming there but 0.45 per cent., whereas in private practice there were 87 instances among 5,639 cases of general skin disease, or something over 1.54 per cent. The reason for the larger percentage of cases occurring among the public cases now analyzed than among those previously referred to, is found partly in the fact that in the hospitals last mentioned the grade of patients is higher than in many other public institutions, approaching more nearly to the class treated in private practice.

It will be seen that in these statistics the proportion of cases of alopecia areata was more than three times greater in private than in public practice, namely, 1.54 per cent. to 0.45 per cent. This difference in relative frequency cannot be wholly attributed to the greater attention which would be paid to the complaint among the former class of patients, for the appearances presented by the bald, smooth, white patches are so striking that they cannot escape attention, and my experience has been that the plainer classes are often quite as solicitous about the disease, when present, as are the rich. I believe alopecia areata to be relatively much less frequent among the poor than among the rich, which is, in a certain measure, an argument against its supposed parasitic origin, and in favor of its neurotic nature.

In the large statistics gathered by the members of the American Dermatological Association, almost entirely or very largely from public practice, the disease forms only about 0.64 per cent., corresponding more to that observed by me in public practice. It seems, however, to be somewhat more frequent in other countries, as McCall Anderson¹ gives nearly two per cent. among his cases,

¹ McCall Anderson: *A Treatise on Diseases of the Skin*, p. 44. London, 1887.

and Crocker¹ says that his statistics yield about the same proportion of cases.

Referring now to the 119 personal cases already mentioned, we will find many points of considerable interest in them, as the histories of almost all of them have been preserved. The following table presents the ages of the patients when applying for treatment :

TABLE I.—*Ages of One Hundred and Nineteen Patients with Alopecia Areata.*

Age.	MALES.			FEMALES.			Grand total.
	Private practice.	Public practice.	Total.	Private practice.	Public practice.	Total.	
5 years and under ...	..	1	1	1	..	1	2
5 to 10 years.....	1	..	1	4	3	7	8
10 to 15 years.....	6	..	6	5	1	6	12
15 to 20 years.....	3	1	4	3	4	7	11
20 to 25 years.....	7	7	14	4	1	5	19
25 to 30 years.....	12	5	17	1	1	2	19
30 to 35 years.....	10	2	12	3	2	5	17
35 to 40 years.....	12	1	13	4	1	5	18
40 to 45 years.....	2	2	4	2	..	2	6
45 to 50 years.....	1	..	1	..	..	..	1
50 to 55 years.....	3	..	3	1	..	1	4
55 to 60 years. ...	..	..	..	..	..	..	..
60 to 65 years.....	1	..	1	..	..	..	1
Unknown	1	..	1	..	..	..	1
Total	59	19	78	28	13	41	119

It will be noted here that the number of the males is almost double that of the females, seventy-eight to forty-one.

The ages of the patients will be found to vary greatly, from early childhood to over sixty years of age, but the disease is found to be relatively rare in either extreme of life. The youngest patient was a little girl of four and a half years, now under treatment, who had had the disease since a few months of age. The oldest patient was a gentleman of sixty-one, who had been affected several times; the first attack occurred thirty-nine years previously, the second twenty years previously, and the third attack began six months before his visit.

¹ Crocker. *Diseases of the Skin*, p. 609. London, 1888.

Taking the years in decades, it will be found that there were comparatively few cases during the first ten years of life, but ten patients in all ; this number is relatively small, considering the large number of individuals living at that age. It is a little curious also that of these ten cases, eight were in females, whereas in the total statistics the males were so largely in excess ; in the next decade the females were again in excess, by three. I think that the reason for the larger proportion of females during these earlier periods of life can only be explained by the greater delicacy of their nervous organism at this time, taken in connection with the nervous theory of the disease in question.

The third decade, that between twenty and thirty years of age, presents by far the largest share of all the cases of alopecia areata, namely thirty-eight, or almost one-third of the entire number analyzed. And here is seen another striking fact in regard to sex, namely, that during this decade the proportion between the sexes is exactly reversed from that which was observed in the first decade of life ; namely, that the males are in very great excess, instead of the females. Thus, we find here thirty-one males to but seven females ; namely, more than four to one ; exactly the reverse of that seen in the first decade, when there were four females to one male. If any supposition or deduction can be drawn from so small a number of cases, is it not that during this busy period in men's lives, when the cares of life begin to press, it is most likely that a nervous affection of this nature should develop ?

In the fourth decade, that from thirty to forty years of age, we find still a large proportion of the cases, namely, thirty-five, more than in the first two decades together. Here the males are two and a half times the number of the females, namely, twenty-five to ten, the figures still supporting the nervous theory of the affection. In the later periods of life the disease is seen to be very much less frequent—indeed, it is rarely met with after fifty years of age. We find, then, that no less than seventy-three patients, or over sixty-one per cent. of the cases, occurred

between the ages of twenty and forty. A negative argument against the alleged parasitic nature of the complaint is found in this fact, as it is well known that vegetable parasitic diseases belong largely to early youth, and are comparatively infrequent in adult life.

In the preceding table the ages of the patients were given at the time when they first presented themselves for treatment; this, however, does not exactly represent the age at which the disease appears, for in some of the patients it had existed for a considerable time before applying for relief. The following table, (II.) gives the alleged ages at which the disease developed in those patients in regard to whom a record is found of the fact, namely, in ninety-seven cases.

TABLE II.—*Age at which Alopecia Areata Commenced in Ninety-seven Cases.*

Age.	MALES.			FEMALES.			Grand total.
	Private practice.	Public practice.	Total.	Private practice.	Public practice.	Total.	
5 years and under ...	2	1	3	2	..	2	5
5 to 10 years.....	3	..	3	4	4	8	11
10 to 15 years.....	8	..	8	5	1	6	14
15 to 20 years.....	4	2	6	2	2	4	10
20 to 25 years.....	8	2	10	4	0	4	14
25 to 30 years.....	13	1	14	1	..	1	15
30 to 35 years.....	4	2	6	3	1	4	10
35 to 40 years.....	7	..	7	5	..	5	12
40 to 45 years.....	0	1	1	1	..	1	2
45 to 50 years.....	1	..	1	..	..	..	1
to 55 years.....	3	..	3	..	..	..	3
Total	53	9	62	27	8	35	97

In looking at this table we see that the figures still corroborate the deductions drawn from the preceding table. Thus, of the ninety-seven cases in which the age of the patient at the commencement of the disease was recorded, in no less than twenty-nine patients, or thirty per cent., it began between the ages of twenty and thirty years, and of these twenty-nine patients, twenty-four were males and five were females.

Table III. exhibits the duration of the complaint before

the patient came under treatment. It would be very interesting to give also a table of the entire duration of the disease, but, unfortunately, so many of the cases pass from notice, especially in public practice, before a perfect cure is obtained, and so many patients are seen in consultation, or but a single time, that it is very difficult to secure accurate statistics on this point. From this table, however, we learn that the affection is by no means a brief or transitory affair, but that the baldness, which may begin with a single insignificant spot, may increase and remain, often resisting all treatment even for many years.

TABLE III.—*Duration of Alopecia Areata in Ninety-three Patients.*

Duration.	MALES.			FEMALES.			Grand total.
	Private practice.	Public practice.	Total.	Private practice.	Public practice.	Total.	
1 month and under ..	1	..	1	5	3	8	9
1 to 2 months	2	1	3	4	..	4	7
2 to 3 months	7	..	7	..	..	..	7
3 to 4 months	1	1	2	..	..	..	2
4 to 5 months	2	..	2	1	..	1	3
5 to 6 months	5	..	5	2	..	2	7
6 months to 1 year ...	8	1	9	3	2	5	14
1 to 2 years	5	1	6	2	..	2	8
2 to 3 years	3	1	4	2	1	3	7
3 to 4 years	3	2	5	4	..	4	9
4 to 5 years	3	..	3	3	..	3	6
5 to 10 years	6	..	6	..	..	..	6
10 to 15 years	1	1	2	..	..	..	2
15 to 20 years	2	..	2	..	..	..	2
20 to 25 years	2	..	2	..	..	..	2
25 to 30 years	1	..	1	..	..	..	1
30 to 35 years .....	..	..	..	..	..	..	..
35 to 40 years	1	..	1	..	..	..	1
Total	53	8	61	26	6	32	93

Of the cases here analyzed, namely, ninety-three, where the duration was recorded, thirty-five, or nearly half, had lasted six months before coming under treatment; in fourteen others the disease had existed between six months and a year; in eight it had lasted between one and two years; in seven between two and three years; and in nine between three and four years, and so on; while some

cases are recorded as of twenty, twenty five, and even thirty years' duration.

Alopecia areata, however, will occasionally be seen to be quite self-limited, or rather to get well spontaneously without medical aid. In a number of instances among these cases there is record of former attacks, where the bald spots have become perfectly covered without treatment, in a varying space of time from a few weeks to some months; the disease has then again developed, perhaps, after an interval of months or years, persisting then, in spite of treatment, for some considerable time. In other patients, suffering from quite different skin affections, we also occasionally get the history of one or more attacks of alopecia areata which have recovered spontaneously, and not returned up to the date of observation. But in my experience this spontaneous recovery is relatively rare, and in the larger share of instances it is not permanent.

The longest period during which I have observed a case is in connection with that of a young gentleman now nearly thirty-nine years of age, whom I first saw something over twelve years ago. The disease had begun in him at two years of age, when the hair began to come out in spots, until within a year or two he had lost all the hair and eyebrows. He wore a wig until fifteen or sixteen years of age, there being almost no attempt at hair reproduction, when, after spending a little time at Richfield Springs, the hair reappeared over almost the entire scalp, and he began to grow beard and whiskers, which at nineteen years of age were full and natural. Affairs remained in this condition until he was twenty-six years of age, when alopecia areata appeared in the beard, and soon new spots developed, until, when seen nine months later, about one-fourth of the hairy surface of the face and scalp was bereft of hair. In spite of pretty diligent treatment the trouble remained, and increased until he became almost entirely bald on the scalp and face, including the eyebrows and lashes, and he lost the hair also from the body and limbs, including axillæ and pubes. From this relapse

he has never recovered, for, although the hair regrows to a slight degree here and there, he is still obliged to wear a wig, and there is almost no reproduction of the hair on the face. He, however, after the first few months, has never been very diligent in treatment, and has always been burdened with a rather vexatious business, and has also had considerable depressing nervous influences in his family relations.

Among the cases here analyzed there occur thirteen cases—six males and seven females—in whom the disease was almost universal. Several of these recovered entirely; in one instance, a man acquired syphilis shortly after the hair had completely regrown from the alopecia areata, and within a few months the hair again fell, this time from the syphilis, in a very characteristic manner, quite different from that before presented, and again it regrew perfectly under anti-syphilitic treatment.

The limits of this paper do not permit of a further analysis of the cases, nor of the presentation of individual cases, many of which present points of very great interest, and I will pass to a brief consideration of the therapeutic aspect of the subject.

Successful treatment must ever depend upon a correct knowledge of the clinical history and nature of the disease, and a few words may be added in regard to this latter, without attempting, however, to enter the subject at all exhaustively.

From what has preceded it is readily seen that I believe in the nervous origin and nature of alopecia areata. I may say that I have examined a large number of the hairs taken from patients with this affection, as also scales scraped from the surface, and have always failed to detect any parasitic elements; and I may add that in no single instance has the disease been presented to me in a manner to show contagion, as occurs constantly in favus and ringworm, and no two of my cases occurred in the same family.

Time does not permit of the mention, or even of analysis, of the various researches on alopecia areata, and

opinions concerning the disease. I may state, however, that Robinson, in the article referred to, shows pretty conclusively the untenability of the parasitic theory of the disease ; but he also argues, though less forcibly, against its nervous origin. Robinson claims to have found the real cause of alopecia areata in micrococci, having " their seat specially in the lymph vessels ; that they give rise to inflammatory changes in the corium, and frequent coagulation of fibrine in the lymph and blood vessels." He believes that " the interference to the growth of the hair would seem to depend, partly at least, upon the thickened blood vessel walls, and, in recent cases, also upon the presence of coagula in the arteries and lymph vessels, interfering with the nutrition supply. If an artery should be closed, the hair could fall out very suddenly in an area of considerable size, namely, the area supplied by that vessel ; or a considerable extent of lymph-vessels could be clogged, and the same result could follow."

The theory is a plausible one, and if these observations as to the existence of micrococci deep in the corium are confirmed by others, it may possibly be found that they have some pathogenetic relations as to the ultimate causation of the disease. But, on the other hand, even if these foreign bodies were found to be present, it by no means follows that they are a primal cause of the disease in question. It is not claimed that they are acquired by infection from other cases, and the question arises as to whether they are not accidental, or a result rather than a cause of the disease under consideration. A theoretical argument has little worth in matters such as this, and at any rate we must wait further researches on the subject.

But even if these micrococci are an element of causation, the same arguments hold here as in other diseases, such as pneumonia, where they are detected, namely, that some condition of system or of the tissues is necessary in order that such microbes may find a footing and effect a development.

This brings us, therefore, to what I believe to be the true elements to be considered in alopecia areata, namely, the

constitutional, and especially the neurotic, aspects of the cases. In proportion as I have regarded these in practice, so far have I had success in removing the alopecia areata, both at the time and permanently; whereas purely local treatment has never, in my hands, yielded thoroughly satisfactory results.

I need not dwell long upon the actual methods and details of treatment, for they are such as will readily suggest themselves when a correct knowledge of the true nature of the complaint is obtained and borne in mind.

Patients with alopecia areata should be put in the best possible condition hygienically; for, although they generally seem to be in good health, careful investigation will often show some departure from the normal condition which has more or less bearing upon the disease. Thought must be especially directed toward nerve nourishment, and all my cases of late years which have done the best have been treated on this plan. The fats and phosphates should be increased in the dietary, and I always encourage largely the use of fresh butter, cream, fat of meats, etc. Milk is also of great service, if well borne; but, as I have fully explained elsewhere, this does not agree well with adults when taken in connection with other food. I direct it therefore to be taken absolutely alone, in the intervals between meals, say one hour before each meal, and at bedtime, provided this is three or four hours after the evening meal. The idea is, that as milk contains all the elements of nutrition, and is the substance from which the hair was originally grown, it will best aid in its later reproduction and nutrition.

The phosphates are best found in whole wheat, and I encourage the use of whole wheat bread, also crushed wheat with cream, and any other preparation in which the phosphates abound; fish I believe to be beneficial in these cases, and I urge its use once daily.

The medicinal treatment is based on the same principle, and my best results have been obtained under the free and continued administration of strychnia with phosphoric

acid. Arsenic is of moderate value, and should be given in alternation with the former. Cod-liver oil is also valuable, especially in patients who cannot or will not take the fats in their dietary; and some of the emulsions, with a large proportion of phosphates, serve the double purpose above indicated.

Locally, the whole treatment is summed up in the single idea of stimulation of the diseased patches. While parasiticides are not actually called for by any local parasite present, experience has shown that many of the remedies used for this purpose are also of benefit in alopecia areata. Bichloride of mercury, in a strength to moderately excite the skin, is frequently the best application; but my preference is for veratria in ointment, of a strength of five to ten or more grains to the ounce. Croton-oil, strong carbolic applications, *aetum cantharidis*, *capsicum*, and other stimulating applications may also be used with advantage.

In conclusion, however, I am positive that the best results in the management of this often troublesome affection will be reached when it is looked upon, not as a local affair, but as a manifestation of a constitutional derangement, having its basis in lowered vitality of the nervous system.

4 EAST THIRTY-SEVENTH STREET.

